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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/825,035  | 04/15/2004  | Devon L. Strawn      | MSFT-3488/307555.01 | 7412             |
| WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION) CIRA CENTRE, 12TH FLOOR |             |                      | EXAMINER            |                  |
|   |             |                      | BROOME, SAID A      |                  |
| 2929 ARCH STREET<br>PHILADELPHIA, PA 19104-2891                       |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2628                |                  |
|   |             |                      |                     |                  |
|   |             |                      | MAIL DATE           | DELIVERY MODE    |
|   |             |                      | 12/10/2008          | PAPER            |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|  | Application No.   | Applicant(s)          |  |  |  |  |
|--|---|-----------------------|--|--|--|--|
| Office Action Occurrence   | 10/825,035  | STRAWN ET AL.         |  |  |  |  |
| Office Action Summary  | Examiner  | Art Unit              |  |  |  |  |
|  | SAID BROOME   | 2628                  |  |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply   | ears on the cover sheet with the c  | orrespondence address |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |   |                       |  |  |  |  |
| Status   |   |                       |  |  |  |  |
| 1) Responsive to communication(s) filed on 10 Se   | eptember 2008   |                       |  |  |  |  |
|  | . · ·   |                       |  |  |  |  |
| <i>i</i> —   | , <del>_</del>  |                       |  |  |  |  |
|  | closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. |                       |  |  |  |  |
| Disposition of Claims  |   |                       |  |  |  |  |
| 4)⊠ Claim(s) <u>1-5 and 13-16</u> is/are pending in the application.   |   |                       |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.   |   |                       |  |  |  |  |
| 5) Claim(s) is/are allowed.  |   |                       |  |  |  |  |
| 6)⊠ Claim(s) <u>1-5 and 13-16</u> is/are rejected.   |   |                       |  |  |  |  |
| 7) Claim(s) is/are objected to.  |   |                       |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or  | election requirement.   |                       |  |  |  |  |
| Application Papers   |   |                       |  |  |  |  |
| 9)☐ The specification is objected to by the Examine  | t.  |                       |  |  |  |  |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.   |   |                       |  |  |  |  |
| Applicant may not request that any objection to the  |   |                       |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).   |   |                       |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.   |   |                       |  |  |  |  |
| Priority under 35 U.S.C. § 119   |   |                       |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:   |   |                       |  |  |  |  |
| 1. Certified copies of the priority documents have been received.  |   |                       |  |  |  |  |
| <ul><li>2. Certified copies of the priority documents have been received in Application No</li><li>3. Copies of the certified copies of the priority documents have been received in this National Stage</li></ul>   |   |                       |  |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  |   |                       |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |   |                       |  |  |  |  |
|  |   |                       |  |  |  |  |
| Attachment(s)  |   |                       |  |  |  |  |
| 1) X Notice of References Cited (PTO-892)  | 4) Interview Summary  | (PTO-413)             |  |  |  |  |
| 2) DNotice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Da   | te                    |  |  |  |  |
| 3) Information Disclosure Statement(s) (PTO/SB/08)  Paper No(s)/Mail Date  5) Notice of Informal Patent Application 6) Other:  |   |                       |  |  |  |  |
| Paper No(s)/Mail Date 6) LJ Other:   |   |                       |  |  |  |  |

#### **DETAILED ACTION**

## Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/10/08 has been entered.

# Response to Amendment

- 1. This office action is in response to an amendment filed on 9/10/2008.
- 2. Claims 1 and 13 have been amended by the applicant.
- 3. Claims 2-5 and 14-16 are original.
- 4. Claims 6-12 and 17-31 have been cancelled.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skyrme ("Full Product Review Adobe LiveMotion") in view of Herbstman et al. (hereinafter "Herbstman", U.S. Patent 5,929,867).

Application/Control Number: 10/825,035

Art Unit: 2628

Page 3

Regarding claim 1, Skyrme teaches a method of keyframing an object (sec. 2 pg. 1 2<sup>nd</sup> ¶ line 1: "Placing an object creates a keyframe at that point and a certain length of display is shown on the timeline…"), comprising:

identifying at least one property (Fig. 1, sec. 1 on pg. 2; 'position', 'object opacity') and a time for the object (sec. 1 pg. 1 6<sup>th</sup> ¶ lines 3-6: "...when you place an object on the stage...the object transform drop down menu for that object is opened and the Position clock face is clicked...just put a tick in the little box that has opened.", and is shown in Fig. 1, sec. 1 on pg. 2: '00s', '01s', where a time, measured in seconds, is provided in which to indicate a transform property);

creating a first compound key frame at the time (sec. 2 pg. 1 2<sup>nd</sup> ¶ line 1: "Placing an object creates a keyframe at that point and a certain length of display is shown on the timeline as a pink line with a knob at each end.", in which a compound frame may be created, as shown in Fig. 1 of sec. 1: where frames that comprise the long pink line are shown that contain associated properties at given instances in time, such as the illustrated: 'Object Opacity' and 'Scale');

creating a second time for the object and creating a second compound key frame at the second time (sec. 2 pg. 2 2<sup>nd</sup> ¶ lines 4-5: "...you can insert a new keyframe by placing the Current Time Marker at a particular point...", where a second new keyframe may be inserted at a new time position);

receiving a change to the at least one property prior to creating the second compound key frame (Fig. 1 of sec. 1 on pg. 2 and in Figs. 1 & 2, pg. 2 of sec. 2, where the play head (vertical line) may be moved about the compound keyframe interface independently of the compound

keyframes themselves to indicate the time at which to apply a property, such as the properties of position, rotation, etc. illustrated in the Figures that are indicated with a white diamond icon, therefore a user would be capable of placing the play head after a first keyframe, but prior to creation of a second keyframe, to enable a property or action to be applied to the second keyframe, as shown in Fig. 1 of sec. 1 in which properties such as 'Object Opacity' and 'Scale' are illustrated), where the second compound key frame incorporates the change to the property once the keyframes are animated (sec. 2 pg. 2 3<sup>rd</sup> ¶ lines 1-4: "If you want to apply a change to the object you can now move forward in the timeline...When played back, the object should tween between the first and second keyframe giving a smooth action.", in which a second compound fey frame that resides successively at a second time along a timeline incorporates the applied action); and

# performing one of:

creating an attribute key frame responsive to the received change to the at least one property if no attribute key frame exists for the at least one property at the time the received change is received (sec. 1 pg. 1 6<sup>th</sup> ¶ lines 3-7: "By dragging your image around on stage, tweens are automatically inserted between keyframes..." and in sec. 2 pg. 2 3<sup>rd</sup> ¶ lines 2-3: "The action can be applied by...selecting the...sliders or the round symbol to apply the desired effect.", where attribute key frame data, or tween data, is created for a specific property at a given instance in time that exists between two compound frames generated by the LiveMotion software to enable attribute data to be inserted between a first keyframe and an existing keyframe located at a position later in the timeline through interpolating the effect of the attribute or applied property over the entire timeline between the frames, thereby enabling specific portions of the

Application/Control Number: 10/825,035

Art Unit: 2628

Page 5

timeline which previously contained no attribute to contain the desired effect during playback of the animation), and

changing an existing attribute key frame responsive to the received change to the at least one property if the existing attribute key frame exists at the time the received change is received (illustrated in Fig. 1 of sec. 1 on pg. 2 and in Figs. 1 & 2, pg. 2 of sec. 2, where an applied property for the keyframes is adjusted from the transform drop down menu, and the resultant change is represented on the user interface, sec. 2 pg. 2 3<sup>rd</sup> ¶ lines 1-4),

where each attribute key frame is a key frame specific to the at least one property of the object (sec. 2 pg. 3 1<sup>st</sup> ¶ lines 1-5: "If you want to apply a change to the object you can now move forward in the timeline and then apply a filter or action to the keyframe...and is just a matter of selecting the filter and then use sliders or the round symbol to apply the desired effect. When played back, the object should tween between the first and second keyframe giving a smooth action.", where a frame is provided specifically at a given instance containing an applied object property on the timeline) and each compound key frame is a key frame specific to all possible properties of the object (sec. 2 pg. 1 1<sup>st</sup> ¶ lines 1-8: "...a series of attributes already in place and more can be added at any time...The attributes and filters applied...affect only that object or layer unless a series of objects is selected at the same time. The simplest way to select objects is to go to the timeline and Ctrl + click the objects...it will affect all the selected objects at the same time and in the same way.", where each compound key frame is described to provide data describing a plurality of properties applied to the object, in which several properties are indicated along the stream of compound frames, Fig. 1 of sec. 1);

However, Skyrme fails to teach a method of keyframing an animation object in an animation implemented at least in part by a computer, the animation including one or more displayed layers, each layer including one or more displayed objects, each object being described by one or more properties / attributes ('properties'), a keyframe implemented at a level corresponding to the properties of the object and a key frame implemented at a level corresponding to the object;

Herbstman teaches a method of keyframing an animation object in an animation implemented at least in part by a computer (col. 1 lines 24-28: "...the invention features a computer-implemented method and apparatus for animating a property (such as the position of an object) using floating keyframes to selectively decouple property space and time constraints."), the animation including one or more displayed layers, each layer including one or more displayed objects, each object being described by one or more properties / attributes ('properties') (col. 1 lines 44-45: "...a method for animating a layer (graphics object) using floating keyframes."), a keyframe implemented at a level corresponding to the properties of the object (col. 1 lines 25-27: "...animating a property (such as the position of an object) using floating keyframes...") and a key frame implemented at a level corresponding to the object (col. 5 lines 13-17: "...each floating keyframe is determined by the attributes...the animation of the position property of a layer, the methods discussed herein are equally applicable to animation of other n-dimensional layer properties such as ... 3D object shape ... ", where the attributes of the keyframe layer level corresponds to the object by defining the shape of the object), therefore it would have been obvious to one skilled in the art at the time of invention to modify the animation keyframes provided by Skyrme with the keyframe layer levels of Herbstman because

this modification would enhance control and manipulation of animated objects along a timeline through implementation of layers that provide properties and attributes for each object within the animation to ensure properties are applied to the objects independently along the timeline without interfering with the attributes and integrity of other corresponding objects during display of the animation.

Regarding claims 2 and 14, Skyrme teaches receiving additional times for the object and creating associated compound key frames at each of the additional times (sec. 2 pg. 2 2<sup>nd</sup> ¶ lines 4-5: "Now you can insert a new keyframe by placing the Current Time Marker at a particular point…" and in 3<sup>rd</sup> ¶ lines 2-3: "The action can be applied by the menu box to the right of the desktop, and is just a matter of selecting the filter and then use sliders or the round symbol to apply the desired effect.").

Regarding claims 3 and 15, Skyrme teaches receiving the second time for the object comprises moving a playhead to a position on a timeline in a user interface, the position corresponding to the second time (sec. 2 pg. 2 2<sup>nd</sup> ¶ lines 4-5: "*Now you can insert a new keyframe by placing the Current Time Marker at a particular point…*").

Regarding claims 4 and 16, Skyrme illustrates entering an animate mode prior to creating the first compound key frame (Fig. 1 of sec. 1, where a user interface is shown that comprises an animation mode that is initialized to enable the user to enter in keyframes, in which after user input timelines are displayed).

Regarding claim 5, Skyrme illustrates that each of the first and second compound key frames represents the state of the at least one property on the object at the associated time (Fig. 1

of sec. 1, where the pink stream of compound frames is shown to have representative properties indicated as diamond icons, such as 'Object Opacity' and 'Scale').

Regarding claim 13, Skyrme teaches a method of keyframing an object (sec. 2 pg. 1 2<sup>nd</sup> ¶ line 1: "Placing an object creates a keyframe at that point and a certain length of display is shown on the timeline…"), comprising:

identifying at least one property (Fig. 1, sec. 1 on pg. 2; 'position', 'object opacity') and a time for the object (sec. 1 pg. 1 6<sup>th</sup> ¶ lines 3-6: "...when you place an object on the stage...the object transform drop down menu for that object is opened and the Position clock face is clicked...just put a tick in the little box that has opened.", and is shown in Fig. 1, sec. 1 on pg. 2: '00s', '01s', where a time, measured in seconds, is provided in which to indicate a transform property);

creating a first compound key frame at the time (sec. 2 pg. 1 2<sup>nd</sup> ¶ line 1: "Placing an object creates a keyframe at that point and a certain length of display is shown on the timeline as a pink line with a knob at each end.", in which a compound frame may be created, as shown in Fig. 1 of sec. 1: where frames that comprise the long pink line are shown that contain associated properties at given instances in time, such as the illustrated: 'Object Opacity' and 'Scale');

creating a second time for the object and creating a second compound key frame at the second time (sec. 2 pg. 2 2<sup>nd</sup> ¶ lines 4-5: "...you can insert a new keyframe by placing the Current Time Marker at a particular point...", where a second new keyframe may be inserted at a new time position);

receiving a change to the at least one property prior to creating the second compound key frame (Fig. 1 of sec. 1 on pg. 2 and in Figs. 1 & 2, pg. 2 of sec. 2, where the play head (vertical line) may be moved about the compound keyframe interface independently of the compound keyframes themselves to indicate the time at which to apply a property, such as the properties of position, rotation, etc. illustrated in the Figures that are indicated with a white diamond icon, therefore a user would be capable of placing the play head after a first keyframe, but prior to creation of a second keyframe, to enable a property or action to be applied to the second keyframe, as shown in Fig. 1 of sec. 1 in which properties such as 'Object Opacity' and 'Scale' are illustrated), where the second compound key frame incorporates the change to the property once the keyframes are animated (sec. 2 pg. 2 3<sup>rd</sup> ¶ lines 1-4: "If you want to apply a change to the object you can now move forward in the timeline...When played back, the object should tween between the first and second keyframe giving a smooth action.", in which a second compound fey frame that resides successively at a second time along a timeline incorporates the applied action); and

## performing one of:

creating an attribute key frame responsive to the received change to the at least one property if no attribute key frame exists for the at least one property at the time the received change is received (sec. 1 pg. 1 6<sup>th</sup> ¶ lines 3-7: "By dragging your image around on stage, tweens are automatically inserted between keyframes..." and in sec. 2 pg. 2 3<sup>rd</sup> ¶ lines 2-3: "The action can be applied by...selecting the...sliders or the round symbol to apply the desired effect.", where attribute key frame data, or tween data, is created for a specific property at a given instance in time that exists between two compound frames generated by the LiveMotion software

Art Unit: 2628

to enable attribute data to be inserted between a first keyframe and an existing keyframe located at a position later in the timeline through interpolating the effect of the attribute or applied property over the entire timeline between the frames, thereby enabling specific portions of the timeline which previously contained no attribute to contain the desired effect during playback of the animation), and

changing an existing attribute key frame responsive to the received change to the at least one property if the existing attribute key frame exists at the time the received change is received (illustrated in Fig. 1 of sec. 1 on pg. 2 and in Figs. 1 & 2, pg. 2 of sec. 2, where an applied property for the keyframes is adjusted from the transform drop down menu, and the resultant change is represented on the user interface, sec. 2 pg. 2 3<sup>rd</sup> ¶ lines 1-4),

where each attribute key frame is a key frame specific to the at least one property of the object (sec. 2 pg. 3 1<sup>st</sup> ¶ lines 1-5: "If you want to apply a change to the object you can now move forward in the timeline and then apply a filter or action to the keyframe...and is just a matter of selecting the filter and then use sliders or the round symbol to apply the desired effect. When played back, the object should tween between the first and second keyframe giving a smooth action.", where a frame is provided specifically at a given instance containing an applied object property on the timeline) and each compound key frame is a key frame specific to all possible properties of the object (sec. 2 pg. 1 1<sup>st</sup> ¶ lines 1-8: "...a series of attributes already in place and more can be added at any time ...The attributes and filters applied ...affect only that object or layer unless a series of objects is selected at the same time. The simplest way to select objects is to go to the timeline and Ctrl + click the objects ...it will affect all the selected objects at the same time and in the same way.", where each compound key frame is described to provide data

Art Unit: 2628

describing a plurality of properties applied to the object, in which several properties are indicated along the stream of compound frames, Fig. 1 of sec. 1);

However, Skyrme fails to teach in a computer system having a graphical user interface including a display and a user interface selection device, a method of keyframing an animation object of an animation via a timeline element on the display, the animation including one or more displayed layers, each layer including one or more displayed objects, each object being described by one or more properties / attributes ('properties'), a keyframe implemented at a level corresponding to the properties of the object and a key frame implemented at a level corresponding to the object;

Herbstman teaches in a computer system (Fig. 9: 10) having a graphical user interface (col. 2 lines 25-26: "...a graphical user interface (GUI...") including a display (Fig. 9: 28) and a user interface selection device (Fig. 9: 29), a method of keyframing an animation object of an animation via a timeline element on the display (col. 1 lines 24-28: "...the invention features a computer-implemented method and apparatus for animating a property (such as the position of an object) using floating keyframes to selectively decouple property space and time constraints."), the animation including one or more displayed layers, each layer including one or more displayed objects, each object being described by one or more properties / attributes ('properties') (col. 1 lines 44-45: "...a method for animating a layer (graphics object) using floating keyframes."), a keyframe implemented at a level corresponding to the properties of the object (col. 1 lines 25-27: "...animating a property (such as the position of an object) using floating keyframes...", where a keyframe corresponds to an attribute, or property, of an object) and a key frame implemented at a level corresponding to the object (col. 5 lines 13-17: "...each

Art Unit: 2628

floating keyframe is determined by the attributes...the animation of the position property of a layer, the methods discussed herein are equally applicable to animation of other n-dimensional layer properties such as...3D object shape...", where the attributes of the keyframe layer level corresponds to the object by defining the shape of the object), therefore it would have been obvious to one skilled in the art at the time of invention to modify the animation keyframes provided by Skyrme with the keyframe layer levels of Herbstman because this modification would enhance control and manipulation of animated objects along a timeline through implementation of layers that provide properties and attributes for each object within the animation to ensure properties are applied to the objects independently along the timeline without interfering with the attributes and integrity of other corresponding objects during display of the animation.

#### Response to Arguments

Applicant's arguments with respect to claims 1-5 and 13-16 have been considered but are moot in view of the new ground(s) of rejection.

The applicant argues on pg. 5  $3^{rd}$  ¶ lines 1-5 of the remarks that Skyrme fails to disclose or suggest the attribute key frame. However, Herbstman teaches a keyframe that provides an attribute corresponding to an object (col. 1 lines 25-27: "...animating a property (such as the position of an object) using floating keyframes...").

The applicant argues on pg. 5 3<sup>rd</sup> ¶ lines 1-5 of the remarks that Skyrme fails to disclose or suggest an object key frame as recited in the independent claims. However, the independent claims do not recite an object key frame, therefore in response to applicant's argument that the

Application/Control Number: 10/825,035

Art Unit: 2628

references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., 'object key frame') are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Page 13

The applicant argues on pg.  $6.1^{st}$  ¶ line  $5 - 3^{rd}$  ¶ line 5 of the remarks that the approach provided in the Skyrme reference requires the user to select or click a button on each property that he desires to animate which can be cumbersome when trying to author an animation and is difficult to quickly determine at what times particular properties of an object are being animated, if the user cannot see all of the properties for the element on screen. Thus, the prior art has defined key frames either 'coarsely' at the layer level that encompass all properties / attributes of all objects at the layer level, or else 'finely' at the attribute level that encompass only an attribute of a particular object, both of which result in corresponding problems, in contrast to the present application in independent claim 1 amended to recite a method of keyframing an object implemented at least in part by a computer where the object is an animation object in an animation that includes one or more displayed layers, where each layer includes one or more displayed objects, and each object can be described by one or more properties / attributes ('properties'). However, Herbstman teaches providing selective application of an object property along the timeline of an animation (col. 2 lines 1-7: "In a movie system, two functions, Q and S, are used to control changes in layer properties over time...controlled by keyframes. A keyframe is a set of attributes associated with a particular point in a space." and col. 2 lines 36-42: "To animate a layer property, the user creates at least two fixed keyframes. The first fixed keyframe sets the value of the layer property at a first time and the second fixed keyframe specifies the

value of that same property at a second time. The system will construct a path Q between the two property values..."), at a layer level that defines the properties of an animated object (col. 1 lines 25-27: "...animating a property (such as the position of an object) using floating keyframes..."), in which a method of keyframing an object implemented at least in part by a computer (col. 1 lines 24-28: "...the invention features a computer-implemented method and apparatus for animating a property (such as the position of an object) using floating keyframes to selectively decouple property space and time constraints."), is provided where the object is an animation object in an animation that includes one or more displayed layers, where each layer includes one or more displayed objects, and each object can be described by one or more properties / attributes ('properties') (col. 1 lines 44-45: "...a method for animating a layer (graphics object) using floating keyframes.").

The applicant argues on pg. 6 4<sup>th</sup> ¶ lines 1-5 of the remarks that at least one property and a time for the object are identified, and a first compound key frame is created at the time. A second time is then created for the object, as is a second compound key frame at the second time, but a change to the at least one property is received prior to creating the second compound key frame. Thus, the second compound key frame incorporates the change to the at least one property. However, Skyrme teaches applying a property defined at a first time for an object frame to be incorporated with a second frame at a second time (sec. 1 pg. 1 6<sup>th</sup> ¶ lines 3-7: "By dragging your image around on stage, tweens are automatically inserted between keyframes..." and in sec. 2 pg. 2 3<sup>rd</sup> ¶ lines 2-3: "The action can be applied by ...selecting the ...sliders or the round symbol to apply the desired effect."), where incorporated key frame data attributes, or tween data, is applied at a particular time that exists between two generated compound frames to

Art Unit: 2628

provide the property, or attribute, data to be applied between a first keyframe and an existing keyframe located at a position later in the timeline through interpolating the effect of the attribute or applied property over the entire timeline between the frames, thereby enabling regions of the timeline which previously contained no property or attribute data to contain the desired property effects during playback of the animation).

The applicant argues on pg. 7 1<sup>st</sup> ¶ lines 1-5 of the remarks that claim 1 further recites the distinction between a compound key frame and an attribute key frame. In particular, claim 1 recites that each attribute key frame is a key frame implemented at a level corresponding to the properties of the object and specific to the at least one property of the object, and each compound key frame is a key frame implemented at a level corresponding to the object and specific to all possible properties of the object. However, Herbstman teaches a key frame implemented at a level corresponding to the properties of the object and specific to the at least one property of the object (col. 1 lines 25-27: "...animating a property (such as the position of an object) using floating kevframes..."), where the frame corresponds to associated properties of an object, therefore the key frame is equivalent to an attribute key frame. Herbstman also teaches a key frame implemented at a level corresponding to the object and specific to all possible properties of the object (col. 5 lines 13-17: "...each floating keyframe is determined by the attributes...the animation of the position property of a layer, the methods discussed herein are equally applicable to animation of other n-dimensional layer properties such as ... 3D object shape ... "), where the frame corresponds to the object itself, and all properties associated with the object, therefore the frame provides a functionally equivalent compound key frame.

Art Unit: 2628

The applicant argues on pg. 7 4<sup>th</sup> ¶ line 1 - pg. 8 1<sup>st</sup> ¶ line 10 of the remarks that Skyrme's perception of the LiveMotion product as set forth in the Skyrme reference clearly does not disclose or even appreciate the distinction between an attribute key frame and a compound key frame, as is now specifically recited in claims 1 and 13. However, Herbstman teaches a key frame corresponding to the properties of an object (col. 1 lines 25-27: "...animating a property (such as the position of an object) using floating keyframes...") and a key frame that corresponds to the object (col. 5 lines 13-17: "...each floating keyframe is determined by the attributes...the animation of the position property of a layer, the methods discussed herein are equally applicable to animation of other n-dimensional layer properties such as...3D object shape..."), therefore the key frames provide functionally equivalent attribute and compound key frames for an animation.

The applicant argues on pg. 8 2<sup>nd</sup> ¶ lines 1-8 of the remarks that applicants also again respectfully submit that the Skyrme reference clearly does not disclose or even appreciate that, responsive to the received change to the at least one property (attribute), an attribute key frame as now specifically recited and distinguished from a compound key frame is created if no attribute key frame exists for the at least one property (attribute) at the time the received change is received, or an existing attribute key frame is changed if the existing attribute key frame exists at the time the received change is received. However, Skyrme teaches creation of an attribute key frame if no attribute key frame exists for the at least one property (attribute) at the time the received change is received, or an existing attribute key frame is changed if the existing attribute key frame exists at the time the received change is received change is received. 2 pg. 2 3<sup>rd</sup> ¶ lines 1-4: "If you want to apply a change to the object you can now move forward in the timeline...When played

Art Unit: 2628

back, the object should tween between the first and second keyframe giving a smooth action." and is shown in Figs. 1 & 2, pg. 2 of sec. 2, where the play head (vertical line) may be moved about the interface independently of the compound keyframes themselves to indicate the time at which to apply an attribute property keyframe, such as the properties of position, rotation, etc. illustrated in the Figures that are indicated with a white diamond icon, therefore a user would be capable of placing the play head after a first keyframe, but prior to creation of a second keyframe, to enable a property or action to be applied to the second keyframe, as shown in Fig. 1 of sec. 1 in which properties such as 'Object Opacity' and 'Scale' are illustrated, in which a second compound fey frame that resides successively at a second time along a timeline incorporates the applied action).

#### Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art patents and publications listed on the attached PTO-892 form pertain to keyframe animation layers:

- Snibbe U.S. Patent 5,886,710
- Lengyel et al. U.S. Patent 6,064,393
- Wilensky U.S. Patent Pub. 2002/0118875

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAID BROOME whose telephone number is (571)272-2931. The examiner can normally be reached on M-F 8:30am-5pm.

Art Unit: 2628

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on (571)272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ulka Chauhan/ /Said Broome/

Supervisory Patent Examiner, Art Unit 2628 Examiner, Art Unit 2628